REMARKS

The present application has been reviewed in light of the Office Action dated November 15, 2007. Claims 1, 4, and 25-30 are presented for examination, of which Claims 1, 25, 27, and 29 are in independent form. Claims 2, 3, and 5-24 were previously cancelled. Claims 1, 4, and 25-30 have been amended to more clearly define Applicant's invention. Favorable reconsideration is requested.

The Office Action states that Claims 1, 4, and 25-30 are rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,057,893 (Kojima et al.) in view of U.S. Patent No. 5,774,624 (Enari). Applicant respectfully traverses the rejections and submits that independent Claims 1, 25, 27, and 29, together with the claims dependent therefrom, are patentably distinct from the cited references for at least the following reasons.

Claim 1 is directed to an image pickup apparatus that includes image pickup means, encoding means, recording means, transmission means, and control means. The encoding means encodes a moving picture signal output from the image pickup means using an intraframe encoding method and an interframe encoding method to generate an encoded image signal. The encoded image signal includes therein a plurality of picture groups each constituted by an image signal of n frames (n being an integer equal to or larger than two) including intraframe-encoded pictures obtained through intraframe encoding processing and interframe-encoded pictures obtained through interframe encoding processing. The recording means records the encoded image signal generated by the encoding means on a recording medium, and the transmission means transmits the encoded image signal generated by the encoding means to an external apparatus while maintaining an encoded state of the encoded image signal.

One of the notable features of Claim 1 is that the control means controls the encoding means and the recording means in accordance with an instruction to start a recording operation, which is issued during transmission of the encoded image signal by the transmission means, such that recording of the encoded image signal starts from a frame thereof corresponding to the instruction to start the recording operation, and such that a number of intraframe-encoded pictures included in one picture group changes without changing a number of frames included in one picture group when the instruction to start the recording operation is issued. A number of intraframe-encoded pictures included in each picture group generated after issuance of the instruction to start the recording operation is smaller than a number of intraframe-encoded pictures included in each picture group generated before the issuance of the instruction to start the recording operation. By virtue of this feature, all of the picture groups generated before the issuance of the instruction to start the recording operation is controlled to have a relatively greater number of intraframe-encoded pictures, and all of the picture groups generated after the issuance of the instruction to start the recording operation is controlled to have a relatively smaller number of intraframe-encoded pictures.

Kojima et al. relates to a picture encoding method in which an image picture signal is encoded in a pre-set sequence by one of a plurality of encoding methods. Apparently, Kojima et al. teaches that, when a scene change in a moving image is detected, a P (i.e., past) picture occurring immediately after the detected scene change is changed to an I (i.e., future) picture, and an I picture occurring before and/or after the detected scene change is changed to a P picture. The classification of a picture as "P" or "I" or "B" (i.e., bidirectional) is based on a predictive coding scheme. A scene change is detected in accordance with luminance,

chromaticity, an amount of data generated per a unit time, and the like. With respect to Figs.12A and 12B, cited in the Office Action, Kojima et al. teaches that the number of I pictures appearing between two detected scene changes (i.e., in a scene) is minimized.

The Office Action concedes that Kojima et al. fails to disclose that an instruction to start recording is an event corresponding to a detected scene change, and contends that Enari remedies this deficiency of Kojima et al. Enari discloses a recording technique for intraframe-encoding all frames until an instruction to start recording is input (see, for example, column 3, lines 45-50), and thereafter intraframe-encoding a frame occurring immediately after the instruction to start recording and interframe prediction-encoding frames following the frame immediately after the instruction to start recording.

Applicant submits that even if a person of ordinary skill is motivated to combine Enari with Kojima et al., any permissible combination would merely result in an instruction to start recording being provided repeatedly (i.e., a plurality of times) in encoding the picture sequence shown in Figs.12A and 12B of Kojima et al. Additionally, Kojima et al. is directed to a technique for exchanging positions between only P pictures and I pictures that are provided near a detected scene change; Kojima et al. is silent regarding controlling the number of I pictures over all the generated moving image picture groups, and also is silent regarding controlling the recording of picture groups provided before and after an instruction to start recording.

Applicant submits that a combination of Kojima et al. and Enari, assuming such combination would even be permissible, would fail to teach or suggest an image pickup apparatus that includes "control means for controlling the encoding means and the recording means in accordance with an instruction to start a recording operation, issued during transmission

of the encoded image signal by the transmission means, so as to start to record the encoded image signal from a frame thereof corresponding to the instruction to start the recording operation, and to change a number of intraframe-encoded pictures included in one picture group without changing a number of frames included in one picture group when the instruction to start the recording operation is issued, so that a number of intraframe-encoded pictures included in each picture group generated after issuance of the instruction to start the recording operation is smaller than a number of intraframe-encoded pictures included in each picture group generated before the issuance of the instruction to start the recording operation," as recited in Claim 1. Accordingly, Applicant submits that Claim 1 is patentable over the cited references and therefore requests withdrawal of the rejection under 35 U.S.C. § 103(a).

Independent Claims 25, 27, and 29 include features similar to those of Claim 1, discussed above, and therefore are believed to be patentable for at least the reasons discussed above. The other rejected claims in this application depend from one or another of the independent claims and therefore are submitted to be patentable for at least the same reasons. Because each dependent claim also is deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

No petition to extend the time for response to the Office Action is deemed necessary for this Amendment. If, however, such a petition is required to make this Amendment

timely filed, then this paper should be considered such a petition and the Commissioner is authorized to charge the requisite petition fee to Deposit Account 50-3939.

Applicant's undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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